



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Wendy Katagi, CDM Smith
Matt Petty, CDM Smith*

Date: September 28, 2015

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on September 28, 2015, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Matt Petty, CDM Smith biologist, beginning at 6:30 am and ending at 4:45 p.m. Weather conditions during the day were cloudy in the morning becoming mostly clear in the afternoon, with temperatures ranging from 67°F in the morning to a high of 85°F in the afternoon. While conditions were humid, no measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with trash and construction debris cleanup, installing the parapet wall on the north and west banks, dredging and soil removal from the east Basin, grading and smoothing the top of bank along Admiralty Way, new pump and pump hose installation, rock delivery, crane-assisted installation of electrical equipment, and tide gate demolition. All crews were overseen by the contractor superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:30 am. Biological monitor arrives on site to conduct initial assessment. Crews are present in parking lot No. 8, and gate is opened for entering construction site.

6:40 am. The Initial Biological Assessment documents several western gull flyovers of the West Basin. Several rock pigeons are perched on high rises along Admiralty Way. House sparrows and European starlings are observed along Washington Boulevard. One killdeer is present in the northeast corner of the site. Two American crows and two mourning doves explore the eastern

bank. One Anna's hummingbird and three house finches are observed along the bike path. One black phoebe and two black-crowned night-herons are observed along the southeast channel. The Basin is largely dewatered, but is highly saturated with surface waters still present near the tide gates, in the West/Central Basin, and in the southeast channel. Silt fence, straw wattles, and other E&S controls are largely in place and in good condition.

7:00 am. The biological monitor gave the bio-awareness training to the Inspector of Record, site superintendent, and his crew of 15 workers, including subcontractors. All workers signed the sign-in sheet. Reminders were given about avoiding and protecting wildlife, particularly the herons in the southeast channel, site safety, and keeping the area free of trash and street debris. Workers are told to temporarily stop work if wildlife come into an active work area, and to notify the biological monitor if wildlife do not voluntarily leave the area. The site superintendent goes over the work plan for the day, which will include activities associated with the parapet wall on the west bank; terramesh installation at the top of slope of the southeast channel; demolition work at the tide gates; and, rock deliveries.

7:15 am. Work begins with one crew working at the tide gates, and a second crew working in the northeast corner of the site. Individuals water the potted plants in the northwest corner and conduct minor excavation with the backhoe in the southwest corner of the site. Two snowy egrets fly east to west over the Basin and continue off-site to the west.

7:40 am. A Fence Corp crew of two arrives on site and are given the Biological Awareness training by the biological monitor. An osprey flight feather is found beneath a light pole on the west bank of the site. The Superintendent mentions that he has not seen the osprey on site for a month or so.

8:00 am. Two black-crowned night-herons fly along the north side of the site and continue off-site to the northwest. A crew begins pumping water out of the tide gates, including pushing water manually out of the gates and towards the pump. No fish or aquatic wildlife are observed in the area. Fence Corp begins work on the north bank. Raccoon tracks are observed in mud along the south shore. American crow and western gull flyovers are frequent.

8:30 am. American crow, mourning dove, and rock pigeon flyovers continue frequently over the West Basin. Mechanized hauling of debris with a tractor begins in the northeast corner. No wildlife are observed in the vicinity. Two mallards fly over the Basin from west to east and leave the site to the southeast. Two American crows walk on the gravel pile on the east bank.

8:40 am. Pumps turn on in the Central Basin and large leaks spew three columns of water into the air. American crow and European starling activity picks up in the palms and residences along Washington Boulevard.

9:00 am. The leaks in the pump system are contained. One great blue heron lands in the southeast channel and begins foraging. Mourning dove and American crow flyovers are still frequent, but western gull flyovers are less frequent.

9:15 am. Crane work begins in the southwest corner (i.e. Parking Lot No. 8). Minor excavation continues in the southwest corner. An American crow lands on a dirt pile in the southwest corner approximately 50 feet from the active work area, but remains undisturbed. A large flock of 16 rock pigeons land on the roof of the Killer Shrimp restaurant. A northern mockingbird is observed perched on a light pole along Washington Boulevard. One gadwall flies along the northern site boundary and continues off-site to the northwest. One mallard is observed preening along the shoreline of the southeast channel. One monarch butterfly flies along the northeast peninsula before exiting the site to the east.

9:30 am. Mechanized grading begins along Admiralty Way and the southeast channel. The mallard observed previously in the channel is not disturbed. Rock pigeons and house finches are observed on the other side of Admiralty Way. Two Anna's hummingbirds and one dark-eyed junco are observed in the eucalyptus trees near the pump house.

9:45 am. During a break, the biological monitor talks to the tractor operator about the boldness of American crows on-site. They will not hesitate to come into works areas to investigate. The tractor operator is told to be vigilant and look out for crows investigating newly disturbed earth.

10:30 am. A water truck is brought in the northeast gate for dust suppression. Grading the smoothing continues at the top of bank along Admiralty Way. Crane work and minor excavation continues in the southwest corner. Power is temporarily cut to the site while the crane operates around power lines and places new electrical equipment at the tide gates. An osprey is observed soaring approximately 0.5 miles to the northeast of the site. It does not fly over or enter the site. Two house sparrows are observed along the north fence.

10:45 am. Four dump trucks arrive at the northeast gate and deposit additional rock on the existing rock pile on the east bank. One monarch butterfly flies over the Central Basin and off-site to the south. One American crow flies over the Basin. Wildlife flyovers are much less frequent than in the early morning.

11:00 am. The dump trucks leave the site. Raccoon tracks are found in the mud around the northeast stormwater inlet. One monarch butterfly is observed flying along the northwest peninsula before flying over Washington Boulevard to the north.

11:30 am. Crane work stops in the southwest corner of the site. Crews resume work inside of the tide gate channels. A bobcat is used to haul fill to the minor excavation in the southwest corner of the site. No wildlife are observed in the Basin. One monarch and one checkerspot (*Euphydryas* sp.) butterfly are observed flying around parking lot No. 8. Two dump trucks return and deliver additional rock to the east bank.

12:00 pm. All crews break for lunch.

1:00 pm. The majority of work is occurring in the southwest corner of the site. Demolition of the tide gates using a jackhammer begins. Minor excavation associated with the parapet wall continues in the southwest corner with a backhoe and bobcat. A two-man crew is working on the wall along

the north bank, while another two-man crew places new pump hoses at the northeast stormwater inlet and newly created gabion peninsula in the Central Basin. The noise from work activities is largely keeping wildlife away; no wildlife are observed in the Basin. No fish or aquatic wildlife are observed at the tide gates.

1:20 pm. One western gull and one American crow fly over the Central Basin. Two rock pigeons land on the Killer Shrimp restaurant roof. A crew begins wetting down previously graded and smoothed bank along Admiralty Way and the southeast channel.

1:30 pm. Two dump trucks arrive at the northeast gate and deposit more rock on the east bank rock pile. One western gull perches on a light pole along Admiralty Way, and two American crows fly over the Basin. Three mourning doves land on the power lines above the north shoreline.

1:45 pm. Grading and smoothing of the top of bank resumes along Admiralty Way and the southeast channel. A large excavator is moved from the northeast corner to the gabion peninsula in the Central Basin. The excavator delivers new pump hose and gas and helps the crew lay down the new hose. One great egret lands in the East Basin approximately 100-feet from the work area and begins preening. A tiger swallowtail flies along the northeast peninsula.

2:10 pm. The large excavator makes several trips back and forth between the northeast corner and the gabion peninsula to retrieve new hose. The great egret flies off-site to the northwest. Five western gulls ride thermals and circle high above the Central Basin.

2:30 pm. A snowy egret flies in from the southwest, circles the Basin once, and flies off to the southwest. Two American crows perch atop temporary power poles on the west bank. Three dump trucks arrive and bring more rock to the east bank rock pile.

3:00 pm. The Inspector of Record leaves for the day. The large excavator begins removing soils from the northeast stormwater inlet area and stockpiles them on a lower bank nearby. Demolition work continues at the tide gates. American crows frequently fly over the Basin.

3:25 pm. Pump installation begins at the southeast channel outlet. One Anna's hummingbird calls from the eucalyptus trees near the pump house. Two dump trucks deliver rock to the east bank rock pile. Very little wildlife activity is observed in the Basin; it is largely limited to American crow activity and rock pigeon activity along Admiralty Way.

3:45 pm. All work stops on-site except for clean-up activities at the tide gates. All crew leave except for two at the tide gates.

4:15 pm. The tide gates will not shut and is allowing water to leak through. The crew of two call others back to the site to close the tide gates.

4:45 pm. All crews and the biological monitor leave the site.

Additional Observations

One osprey was observed soaring approximately 0.5 miles to the northeast of the project site. However, it never entered or flew over the project site. No Black Skimmers or California Least Terns were observed today.

Four monarch butterflies were observed flying around the project site. Construction crews will be reminded to be on the lookout for any monarchs that fly into active work areas.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on.
2. In general, wildlife is most active in the morning with a dramatic decrease in observed wildlife activity after 10:00 am. Wildlife activity increases slightly in the late afternoon.
3. Many of the bird species remained at the site for long periods and appeared undisturbed by the nearby construction activities. The wading birds that were present at the site seemed to prefer to rest and forage in the Central and East Basins where less intense activities were occurring.
4. No fish were directly observed, but the presence of wading birds stalking the shallows indicates that a few mosquito fish likely remain.
5. While wildlife observations have decreased, insects remain common, including several species of dragonflies and butterflies, including monarch, swallowtails, checkerspots, white cabbage and painted lady.
6. While not seen directly, there are several raccoon tracks in the wet mud on all sides of the Basin. This suggests that raccoons still use the site to forage at night.

Table 1 provides a list of bird species observed during biological monitoring on September 28, 2015.

Table 1. Bird Species Observed during Biological Monitoring on September 28, 2015		
Common Name	Scientific Name	Comments
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the Basin banks
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	2 individuals observed foraging in the southeast Channel

Great Blue Heron	<i>Ardea Herodias</i>	1 individual observed in the southeast channel
Mallard	<i>Anas platyrhynchos</i>	2-3 individuals foraging in the southeast channel and the east Basin; flying overhead
Gadwall	<i>Anas strepera</i>	1 individual observed flying overhead
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
Mourning Dove	<i>Zenaida macroura</i>	Several individuals; Common - mainly seen sitting on power lines and flying overhead
Snowy Egret	<i>Egretta thula</i>	3 individuals observed flying overhead
Great Egret	<i>Ardea alba</i>	1 observed preening and resting in the east Basin
Black Phoebe	<i>Sayornis nigricans</i>	1 observed foraging along the southeast channel
House Finch	<i>Haemorhous mexicanus</i>	3-5 individuals; observed flying overhead, and perching on fences and vegetation
House Sparrow	<i>Passer domesticus</i>	3-5 individuals; observed mainly along the north side of the Basin
European Starling	<i>Sturnus vulgaris</i>	Very common; observed in palms north of site
Rock Pigeon	<i>Columba livia</i>	Very common; observed flying overhead and on structures to the south of Basin
Osprey	<i>Pandion haliaetus</i>	1 observed soaring 0.5 miles to the northeast of the project site
Killdeer	<i>Charadrius vociferus</i>	1 observed foraging in the northeast corner of the Basin
Northern Mockingbird	<i>Mimus polyglottos</i>	1 observed perched along Washington Boulevard
Dark-eyed Junco	<i>Junco hyemalis</i>	1 observed in the trees near the pump house
Anna's Hummingbird	<i>Calypte anna</i>	3-5 observed singing and foraging on the east side of the Basin



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Wendy Katagi, CDM Smith
Matt Petty, CDM Smith*

Date: September 29, 2015

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on September 29, 2015, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Matt Petty, CDM Smith biologist, beginning at 6:20 am and ending at 4:00 p.m. Weather conditions were mostly clear and sunny all day, with temperatures ranging from 63°F in the morning to a high of 84°F in the afternoon. While conditions were humid, no measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with trash and construction debris cleanup, concrete placement for the parapet wall on the north and west banks, dredging and soil removal from the East Basin, grading and smoothing the top of bank along Admiralty Way, rock delivery, and tide gate demolition. All crews were overseen by the contractor superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:20 am. Biological monitor arrives on site to conduct initial assessment. No one is at the site and the biological monitor opens the gate.

6:30 am. The Initial Biological Assessment begins and one mourning dove is observed sitting on a mud pile in the West Basin. One northern mockingbird is observed in the palms along Washington Boulevard. American crows and western gulls are frequently observed flying over the Basin. One killdeer is observed along the shorelines in the northeast corner of the site. One house sparrow and one black phoebe are perched on the east fence. Two snowy egrets fly in and land in the Central

Basin. Two house finches and one Anna's hummingbird are observed along the bike path. Two black-crowned night herons are foraging in the southeast channel. Two dark-eyed juncos and one Anna's hummingbird are perched in the eucalyptus trees near the pump house. Several rock pigeons are flying about the high rises on the other side of Admiralty Way.

7:00 am. Three mallards and one black-crowned night-heron fly in and begin foraging in the East Basin. Five snowy egrets and one great egret fly in and land in the southeast channel. Two more mallards fly over the Basin. One mourning dove is perched on the power line near the tide gates, and four European starlings are observed around the residences on the other side of Washington Boulevard. Most crew members and the Inspector of Record arrive onsite and are awaiting the construction superintendent to arrive.

7:10 am. The biological monitor gave the bio-awareness training to the Inspector of Record and the construction crew of 11 workers, including subcontractors. Emphasis is placed on looking out for monarch butterflies and the ducks and egrets present in the East Basin and the southeast channel. All workers signed the sign-in sheet. The superintendent still has yet to arrive.

7:20 am. The biological monitor gave the bio-awareness training to the SCCI crew of three at the tide gates. The monitor points out a snowy egret wading nearby to emphasize wading bird avoidance and protection. They are reminded that they need to attend the meeting with the entire group each morning to receiving the training and health and safety tips.

7:25 am. The construction superintendent and a crew member arrive. The biological monitor goes over the bio-awareness training and the plan for the day is discussed. Major activities include demolition at the tide gates and pouring concrete for the parapet wall along the west bank. The biological monitor mentions that the pickleweed in pots looks dry, and the superintendent agrees to have them watered.

7:30 am. Work begins. One crew is located at the tide gates; a snowy egret is located roughly 50 feet away and is undisturbed by work activities. One crew member is watering the potted pickleweed on the west bank. A second crew is in the northeast corner setting up the parapet wall scaffold. Three snowy egrets near the northeast stormwater inlet are undisturbed by nearby work activities. One least sandpiper forages in the West Basin. American crow and western gull flyovers are frequently observed.

7:45 am. A crew begins survey and pump installation work along the southeast channel. Several ducks and egrets slowly walk and swim away from the work area but stay in the channel.

8:15 am. Despite work occurring nearby, eight snowy egrets, one great egret, two black-crowned night-herons, and three mallards continue to forage in the East Basin and southeast channel. American crows wander the east bank and occasionally harass the egrets. One black phoebe and one Anna's hummingbird fly around the pump house. Grading and smoothing of the top of bank along Admiralty Way begins. Five orange-crowned warblers are observed flitting about eucalyptus trees along the bike path.

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8:35 am. Six dump trucks arrive and deposit large stone on the east bank. One peregrine falcon is observed perched atop a high rise across Admiralty Way. One female Anna's hummingbird flits about the pine trees on the south bank.

8:55 am. The deputy inspector for concrete arrives. Three semipalmated plovers forage in the mud around the West Basin.

9:30 am. The concrete truck arrives to begin installing the foundation for the parapet wall along the west bank. The water quality inspector also arrives on site. Three snowy egrets and two semipalmated plovers forage in the West Basin but slowly walk towards the Central Basin as work activity increases.

9:45 am. Bio-awareness training is given to the Cemex concrete crew and the water quality inspector. Because two of the Cemex crew have already donned their work gear, they do not sign the sheet but verbally indicate they understand wildlife avoidance and protection measures. The Cemex foreman and water quality inspector sign the sheet. Rock pigeons frequently fly over the west bank work area.

10:00 am. Cement placement begins in the southwest corner of the site and moves from south to north along the west bank. With the cement activity and jackhammering at the tide gates, no wildlife is observed in the vicinity. The closest wildlife are five mourning doves and one house finch perched on power lines along the north bank. The large excavator begins removing and stockpiling Basin soils near the stormwater inlet in the northeast corner.

10:15 am. While most birds have left the Basin, five snowy egrets remain in the East Basin. They rest and forage approximately 50 feet from grading activities on the south bank, and roughly 100 feet from soil excavation activities in the East Basin. Both crews are alerted of the egrets' location and work continues without disturbing the birds. When the excavator gets to within 50 feet of an egret, it flies away and lands approximately 100-feet from the active excavation.

10:30 am. One dump truck arrives and delivers large stone to the east bank. The excavator works in the last remaining water in the East Basin. No fish or aquatic wildlife are observed. When removed, the soil has a strong briny and sulfuric odor. Two mallards fly over the Basin, and one tiger swallowtail butterfly flies along the southeast channel.

10:45 am. A young snowy egret will not move when the excavator gets to within 15 feet of its location. Work is temporarily stopped and the biological monitor shoos the egret to a safe distance, approximately 150 feet from the excavator.

11:00 am. The young snowy egret flies in and lands roughly 20 feet from the excavator. Work is stopped a second time and the biological monitor shoos the egret to a safe distance. This young egret was previously observed being chased away by older egrets, and sees an opportunity for an easy meal in the dredge piles. While no fish have been observed in the piles, they contain benthic invertebrates.

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11:15 am. Excavation in the east Basin stops as the excavator reaches the south shore. The work crew is stopped by two men taking photos of the work from Admiralty Way. The biological monitor politely engages the two men, and directs them to the County's website for all questions. One of the men gives the biological monitor his business card. His information is provided below:

Peter John Ruiz – Venice Pier Project: venicepierproject@gmail.com 310-621-8910

11:45 am. Cement placement along the west bank is completed. Wildlife have largely avoided the West Basin and tide gates where the most intense work is being performed.

12:00 pm. All crews break for lunch. The construction superintendent leaves for the day, but a senior construction manager has arrived to oversee the rest of the day's activities.

1:00 pm. Cement placement for the parapet wall continues in the northeast corner of the site. The large excavator is moved from the south bank back to its staging area on the east bank. Five snowy egrets fly out of the way of the excavator and land approximately 100 feet away. Demolition work continues at the tide gates.

1:15 pm. A front loader is consolidating the large stone into one large pile on the east bank. One monarch butterfly is observed flying along the south shoreline. One mallard is observed foraging in the southeast channel. Continued pumping in the southeast channel is causing water levels to drop.

1:40 pm. A black phoebe flies in and lands on the stormwater inlet in the northeast corner of the site, roughly 50 feet from where concrete is being placed. Two snowy egrets leave the site to the southwest, leaving three snowy egrets onsite in the East Basin. Six dump trucks arrive, but are unable to enter the northeast gate because cement trucks are in the way. The dump trucks are staged on Washington Boulevard.

2:00 pm. Cement work is done for the day, and the Inspector of Record leaves the site. The six dump trucks deliver large stone, which is added to the pile on the east bank. One monarch butterfly flies along the northern fence.

2:30 pm. Work activities largely consist of a front loader shoring up the rock and gravel piles on the east bank and tide gate demolition. There is also manual treatment of recently placed concrete on the west bank. Three snowy egrets remain in the Basin, including one that is resting approximately 150 feet from the tide gate. The presence of the egrets is notable because wading birds often leave the Basin much earlier in the day. There are also occasional American crow, rock pigeon, and western gull flyovers.

2:50 pm. The clear, sunny and windy days have helped to dry out the stockpiled Basin muck and clay soils. On Monday morning, the soils were wet, black and could not be walked on. However, by this afternoon, the soils have dried a silver gray, and can be walked on. One mallard and two snowy egrets continue to forage in the southeast channel. A monarch butterfly flies along the channel before crossing Admiralty Way. One Anna's hummingbird is observed flying along the bike path.

3:00 pm. Work on the east bank and in the northeast corner stops, except for some manual treatment of the recently-placed concrete. The snowy egret in the West Basin flies off-site to the southwest.

3:20 pm. Crews begin cleaning up for the day. A great egret flies over the Basin from northeast to southwest and exits the site toward the marina. Three American crows and one western gull land in Parking Lot No. 7 and explore the staging area. There are occasional rock pigeon flyovers, with eight pigeons perched on the roof of the Killer Shrimp restaurant to the southwest. Two European starlings are observed in palms at the Yacht Club on the other side of Admiralty Way.

3:45 pm. All work on the site stops. One monarch is observed flying along the north fence from west to east.

4:00 pm. All crews and the biological monitor leave the site.

Additional Observations

No Black Skimmers, Osprey, or California Least Terns were observed today.

One peregrine falcon was observed today in the high rises along Admiralty Way.

Four monarch butterflies were observed flying around the project site. Construction crews were reminded to be on the lookout for any monarchs that fly into active work areas.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on.
2. In general, wildlife is most active in the morning with a dramatic decrease in observed wildlife activity after 10:00 am. Wildlife activity increases slightly in the late afternoon.
3. Many of the bird species remained at the site for long periods and appeared undisturbed by the nearby construction activities. The wading birds that were present at the site seemed to prefer to rest and forage in the center and east Basins where less intense activities were occurring.
4. No fish were directly observed, but the presence of wading birds stalking the shallows indicates that a few fish (likely mosquito fish) and invertebrates likely remain.

5. While wildlife observations have decreased, insects remain common, including several species of dragonflies and butterflies, including monarch, swallowtails, sulphurs, white cabbage and painted lady.
6. The presence of orange-crowned warblers and semipalmated plovers indicate that early migrations have begun. As summer draws to a close, it is expected that migrants and winter species will be observed at the site more frequently moving forward.

Table 1 provides a list of bird species observed during biological monitoring on September 29, 2015.

Table 1. Bird Species Observed during Biological Monitoring on September 29, 2015		
Common Name	Scientific Name	Comments
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the Basin banks
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	3-5 individuals observed foraging in the southeast channel and the east Basin
Mallard	<i>Anas platyrhynchos</i>	3-5 individuals foraging in the southeast channel and the east Basin; flying overhead
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
Mourning Dove	<i>Zenaida macroura</i>	Several individuals; Common – mainly seen sitting on power lines and flying overhead
Snowy Egret	<i>Egretta thula</i>	8-10 individuals observed foraging and resting in the Basin
Great Egret	<i>Ardea alba</i>	1 observed flying overhead
Black Phoebe	<i>Sayornis nigricans</i>	2-3 observed foraging and perching around the east Basin
House Finch	<i>Haemorhous mexicanus</i>	3-5 individuals; observed flying overhead and perching on fences and vegetation
House Sparrow	<i>Passer domesticus</i>	1 observed perched on the east fence
European Starling	<i>Sturnus vulgaris</i>	Very common; observed in palms north of site and southwest of the site
Rock Pigeon	<i>Columba livia</i>	Very common; observed flying overhead and on structures to the south of Basin
Killdeer	<i>Charadrius vociferus</i>	1 observed foraging in the northeast corner of the Basin
Northern Mockingbird	<i>Mimus polyglottos</i>	1 observed in palms along Washington Boulevard
Dark-eyed Junco	<i>Junco hyemalis</i>	2 observed in the trees near the pump house
Anna's Hummingbird	<i>Calypte anna</i>	3-5 observed singing and foraging on the east and south sides of the Basin
Peregrine Falcon	<i>Falco peregrinus</i>	1 perched atop a high rise along Admiralty Way
Least Sandpiper	<i>Calidris minutilla</i>	1 foraging in the West Basin
Semipalmated Plover	<i>Charadrius semipalmatus</i>	3-4 foraging in the West Basin
Orange-crowned Warbler	<i>Oreothlypis celata</i>	5 flying about the eucalyptus trees along the bike path



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Wendy Katagi, CDM Smith
Matt Petty, CDM Smith*

Date: September 30, 2015

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on September 30, 2015, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Matt Petty, CDM Smith biologist, beginning at 6:15 am and ending at 4:45 p.m. Weather conditions were mostly clear and sunny all day, with temperatures ranging from 68°F in the morning to a high of 81°F in the afternoon. While conditions were humid, no measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with trash and construction debris cleanup, concrete placement for the parapet wall on the north bank, dredging and soil removal from the East Basin and southeast channel, grading and smoothing the east bank, and tide gate demolition. All crews were overseen by the contractor superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:15 am. Biological monitor arrives on site to conduct initial assessment. Two crew members sit in a truck onsite at the site and the gate is open. No other crew members have arrived.

6:25 am. The Initial Biological Assessment begins and one double-crested cormorant is observed flying over the West Basin. One great blue heron is observed flying southeast to northwest over the Basin and off-site. American crows and western gulls are frequently observed flying over the Basin. Three European starlings and four house finches call from palms along Washington Boulevard. Three American crows investigate the east bank, and three black-crowned night-herons forage in

the southeast channel near the pump house. Two dark-eyed juncos and two Anna's hummingbirds perch in eucalyptus trees along the bike path. One black phoebe is observed in the northeast corner of the site.

6:45 am. The Initial Biological Assessment continues as four snowy egrets fly in and land in the East Basin. One great egret circles the West Basin and flies off to the southwest. The water level in the Basin is low, with most surface water concentrated in a 20-foot wide channel from the gabion peninsula in the Central Basin to the tide gates.

6:55 am. The Initial Biological Assessment ends. Most crew members are onsite but the construction superintendent and Inspector of Record have yet to arrive. A double-crested cormorant circles Parking Lot No. 7 before flying off. Several crows fly east-to-west down Washington Boulevard.

7:05 am. The biological monitor gave the bio-awareness training to the Inspector of Record and the construction crew of 11 workers, including subcontractors. Emphasis is placed on looking out for monarch butterflies and egrets present in the East Basin and the southeast channel. All workers signed the sign-in sheet. The superintendent still has yet to arrive.

7:15 am. The construction superintendent and a crew member arrive. The biological monitor goes over the bio-awareness training and the plan for the day is discussed. Major activities include demolition at the tide gates, excavation in the East Basin, and pouring concrete for the parapet wall along the north bank. Work begins as one crew prepares the north wall braces for the day's concrete pour, and another crew begins demolition activities at the tide gates. One crew member waters the potted plants in the northwest corner of the site, as one European starling and one mourning dove perch on powerlines above him.

7:30 am. A crew begins surveying work on the south shore and East Basin to plan excavation activities. Two American crows and one western gull land in Parking Lot No. 7 near the construction trailer and investigate the sand pile before flying off. Two house finches perch on the north fence, and one house sparrow flies over the northwest corner of the site.

8:00 am. Excavation begins using two excavators in the East Basin. Three American crows investigate the south bank, and two killdeer call from the east bank. The four snowy egrets initially observed in the East Basin have moved to the southeast channel. Western gulls occasionally fly over the site.

8:20 am. American crow activity has significantly increased; approximately 20 crows are present in the Basin and are largely foraging on bank slopes. One snowy egret flies over the excavation area and lands on the stormwater inlet, which flushes a black phoebe that is perched there. The killdeer pair do not exhibit courtship or nesting behavior, but show some fidelity to a bare spot on the east bank.

8:45 am. Deputy concrete inspector arrives on-site. Three mallards fly over the Basin from east to west. The majority of crows have left the site to the north. A snowy egret circles the Basin and leaves the site to the southeast.

9:15 am. A cement placement truck arrives and traffic control measures (i.e. closing one lane) along Washington Boulevard are implemented. The biological monitor approaches the killdeer on the east bank. They call out, but do not perform the characteristic broken-wing display used when a potential predator approaches a nest. The pair flies off and lands in the Central Basin. The biological monitor explores the area where the two were laying down and finds no nest or eggs.

9:45 am. Cement mixer arrives and concrete placement of the parapet wall begins in the northwest corner of the site. Crane work begins at the tide gates. Bio-awareness training is given to the cement truck operator and a forklift operator that has arrived on-site. A snowy egret circles the West Basin and leaves the site to the northwest.

10:15 am. The forklift operator begins unloading construction equipment off a truck in parking lot No. 7 and stockpiling it near the construction trailer. Excavation continues in the East Basin. One belted kingfisher and one black phoebe perch on power lines above the stormwater inlet in the northeast corner of the site. Two mourning doves are also perched on the power lines, but in the northwest corner. Occasional rock pigeon and western gull flyovers are observed.

10:30 am. One dump truck arrives and delivers large stone to the east bank. The excavator works in the last remaining water in the East Basin. No fish or aquatic wildlife are observed. When removed, the soil has a strong briny and sulfuric odor. Two mallards fly over the Basin, and one tiger swallowtail butterfly flies along the southeast channel.

10:35 am. One crew member begins digging up and potting pickleweed along the north shore. Two killdeer remain in the East Basin, but stay approximately 150-feet from the excavator. One monarch flies along the east fence. Three house finches and two Anna's hummingbirds rest in trees along the bike path.

10:50 am. Fencing is delivered by pickup truck to the south bank and the northeast corner. Crews take measurements of the existing perimeter fence along Admiralty Way. One mallard leaves the southeast channel and flies off-site to the northwest. No ducks or wading birds are currently onsite.

11:05 am. Concrete placement associated with the parapet wall has reached the northwest peninsula. Excavation continues into the southeast channel. A great egret lands in the West Basin and begins preening. Three crows fly from tree-to-tree along the bike path.

11:40 am. Wildlife activity in the Basin has decreased. The only birds observed in the Basin itself are one great egret, two killdeer, and one black phoebe. Occasional fly-bys and flyovers by European starlings, house finches, mourning doves, American crows, and western gulls and rock pigeons occur, but are less frequent than in the morning. Excavation in the East Basin and southeast channel has stopped, and the excavator is returned to its staging area near the stormwater inlet. Concrete work continues eastward from the northwest peninsula.

12:00 pm. All crews break for lunch, except for the cement crew who stay out and continue placing cement for the parapet wall.

1:00 pm. Demolition work at the tide gates and excavation in the East Basin resumes. Concrete work continues midway between the northwest and northeast peninsulas. Old tide gate parts are lifted out by crane in the southwest corner of the site. The great egret continues preening in the West Basin, and a female Allen's hummingbird hovers over the west bank. Rock pigeons frequently fly over the Basin.

1:30 pm. Mechanized grading and smoothing begins on the slopes of the east bank, with a crew member following behind with a hose for dust control. One black phoebe and two house sparrows perch at the pump house. Dozens of butterflies, mostly swallowtails, painted lady, and sulphurs, are observed throughout the Basin. The muck being excavated at the entrance to the southeast channel has a very strong brine and sulfur odor.

1:55 pm. One crew member continues to pot pickleweed plants from around the northeast peninsula and stormwater inlet. No wildlife are observed in that area of the Basin. One snowy egret flies in and lands in the East Basin, roughly 100-feet from the excavator, and probes the last remaining puddles. A murder (i.e. flock) of 13 crows flies over the Basin.

2:10 pm. The cement pour has reached the northeast peninsula. Mechanized grading and smoothing of the east bank comes to an end. Two snowy egrets fly in; one lands in the West Basin and one lands in the East Basin. Due to shallow, relatively stagnant water in the Basin, brown and green algae blooms are being observed more frequently.

2:35 pm. Mechanized grading and smoothing of the east bank resumes. The great egret in the West Basin flies off-site to the southwest. A snowy egret flies from the East Basin to the stormwater inlet.

3:00 pm. One snowy egret flies over the Basin from west to east. Two house finches perch on the south fence. Two American crows perch atop power poles in the northeast corner of the site.

3:10 pm. The concrete pour is completed. Crews manually inspect, smooth, and shave the concrete parapet wall.

3:20 pm. Crews begin cleaning up for the day. Excavation in the East Basin and mechanized grading and smoothing on the east bank stop for the day. Tide gate demolition activities also stop. Aside from one black phoebe and one snowy egret in the southeast channel, very little wildlife activity is observed in the Basin.

3:40 pm. The tide gate demolition crew leaves the site. Other crews lock gates and take down traffic control structures while the cement crew cleans their trucks. The occasional American crow, western gull, and European starling flyover is observed along Washington Boulevard.

4:00 pm. Only the construction superintendent, cement crew, and biological monitor remain on-site. The cement crew washes down trucks and equipment near the construction trailer. No work is being conducted in the Basin.

4:45 pm. All crews and the biological monitor leave the site.

Additional Observations

No Black Skimmers, Osprey, or California Least Terns were observed today.

While not as numerous as the previous two days, one monarch butterfly was observed flying around the project site. Construction crews were reminded to be on the lookout for any monarchs that fly into active work areas.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on.
2. In general, wildlife is most active in the morning with a dramatic decrease in observed wildlife activity after 10:00 am. Wildlife activity increases slightly in the late afternoon.
3. Many of the bird species remained at the site for long periods and appeared undisturbed by the nearby construction activities. The wading birds that were present at the site seemed to prefer to rest and forage in areas of the Basin where less intense activities were occurring.
4. No fish were directly observed, but the presence of wading birds stalking the shallows indicates that a few fish (likely mosquito fish) and invertebrates likely remain.
5. While wildlife observations have decreased, insects remain common, including several species of dragonflies and butterflies, including monarch, swallowtails, sulphurs, white cabbage and painted lady.
6. Due to shallow, relatively stagnant water in the Basin, brown and green algae blooms are being observed more frequently.

Table 1 provides a list of bird species observed during biological monitoring on September 30, 2015.

Table 1. Bird Species Observed during Biological Monitoring on September 30, 2015		
Common Name	Scientific Name	Comments
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the Basin banks
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	3 individuals observed foraging in the southeast channel
Mallard	<i>Anas platyrhynchos</i>	4-6 individuals foraging in the southeast channel and the East Basin; flying overhead
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
Belted Kingfisher	<i>Megaceryle alcyon</i>	1 individual observed perched on a power line in the northeast corner of the Basin
Mourning Dove	<i>Zenaida macroura</i>	Several individuals; Common – mainly seen sitting on power lines and flying overhead
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	1-2 individuals observed flying overhead
Great Blue Heron	<i>Ardea Herodias</i>	1 individual observed flying overhead
Snowy Egret	<i>Egretta thula</i>	4-6 individuals observed foraging and resting in the Basin
Great Egret	<i>Ardea alba</i>	1-2 observed resting in the west Basin and flying overhead
Black Phoebe	<i>Sayornis nigricans</i>	2-3 observed foraging and perching around the east Basin and southeast channel
House Finch	<i>Haemorhous mexicanus</i>	7-9 individuals; observed flying overhead and perching on fences and vegetation
House Sparrow	<i>Passer domesticus</i>	2-3 observed flying over West Basin and perched at the pump house
European Starling	<i>Sturnus vulgaris</i>	Very common; observed in palms north of site and flying overhead
Rock Pigeon	<i>Columba livia</i>	Very common; observed flying overhead and on structures to the south of Basin
Killdeer	<i>Charadrius vociferous</i>	2 observed resting on the east bank and foraging in the East Basin
Dark-eyed Junco	<i>Junco hyemalis</i>	2 observed in the trees along the bike path
Anna's Hummingbird	<i>Calypte anna</i>	3-5 observed singing and foraging along the bike path
Allen's Hummingbird	<i>Selasphorus rufus</i>	1 female observed hovering over west bank



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Wendy Katagi, CDM Smith
Matt Petty, CDM Smith*

Date: October 1, 2015

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on October 1, 2015, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Matt Petty, CDM Smith biologist, beginning at 6:15 am and ending at 5:00 p.m. Weather conditions were mostly clear and sunny all day, with temperatures ranging from 66°F in the morning to a high of 80°F in the afternoon. While conditions were humid, no measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with trash and construction debris cleanup, scaffolding and bracing for the parapet wall on the west bank, drilling caisson holes for the viewing deck on the south bank, and tide gate demolition. All crews were overseen by the contractor superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:15 am. Biological monitor arrives on site to conduct initial assessment. Two crew members sit in a truck in Parking Lot No. 7. No other crew members have arrived. The biological monitor opens the gate.

6:25 am. The Initial Biological Assessment begins and several western gulls fly over the site, with one landing and perching on a light pole along Admiralty Way. One northern mockingbird perches on a power pole and three house finches perch in pines in the northeast corner of the site. New raccoon tracks are found in the mud along the north shoreline. American crows occasionally fly over the north and east fence lines. Two orange-crowned warblers, two Anna's hummingbirds, and

one house wren forage about in the trees and shrubs along the bike path. Two snowy egrets, one black-crowned night-heron, and one black phoebe are present in the southeast channel near the pump house. Two house sparrows are present in the eucalyptus and ficus trees near Yvonne Burke Park. One Allen's hummingbird perches on the south fence, and one mourning dove flies along Admiralty Way. Two house finches are observed in small bushes on the west bank. Evidence near the northwest peninsula storm pipe, including ponding water, scour, sediment deposition and newly-deposited trash, suggests a large pulse of water came from the Washington Boulevard storm sewer overnight.

7:00 am. The biological monitor gave the bio-awareness training to the construction crew of 19 workers, including subcontractors. Emphasis is placed on looking out for monarch butterflies and egrets present in the East Basin and the southeast channel. All workers signed the sign-in sheet. The superintendent and Inspector of Record have yet to arrive.

7:15 am. The construction superintendent and a crew member arrive. The biological monitor goes over the bio-awareness training and the plan for the day is discussed. Major activities include demolition at the tide gates, setting up bracing for the parapet wall on the west bank, and drilling for the caissons on the south bank. Work begins as one crew opens up the northeast gate for three dump trucks to deliver stone, and another crew begins demolition activities at the tide gates. Wildlife activity increases as the sun breaks over the horizon. One great blue heron flies over the site to the southeast, and one mallard circles the Basin and flies off to the northwest. Three European starlings, two house finches, and one Anna's hummingbird fly around the palms along Washington Boulevard. Two Anna's hummingbirds perch in the pines in the northeast corner, and two dark-eyed juncos forage in the straw wattles on the south shore. Frequent American crow, rock pigeon, and western gull flyovers are recorded.

7:30 am. The Mahaffey (drilling) crew moves the drill rig into place on the east bank to attach the drill bit. Seven snowy egrets are observed foraging in the southeast channel. They are joined by one mallard and one black phoebe, the latter of which flies from perch to perch along the channel. Squabbles among the egrets are common, as they fight for space in the last remaining puddles. A second crew moves two tractors from the northeast corner of the site to Parking Lot No. 7 to clear up space.

7:50 am. The drill rig is moved out and around the pump house and southeast channel before coming to a stop on the south bank. The rig flushes the mallard, which circles the East Basin and returns to the channel. The snowy egrets are undisturbed, and continue foraging for invertebrates by kicking up sediment with their feet. One monarch is observed roosting in a eucalyptus along the bike path. It rests on the east-facing side so that the morning sun can provide warmth.

8:10 am. The construction superintendent and the Inspector of Record arrive on-site. Four semipalmated plovers fly over the Basin and leave the site to the southeast. Five American crows probe the recently-graded east bank.

8:30 am. Crews prepare the south bank for drilling. A separate crew checks the recently-poured concrete base for the wall along the west bank. Wildlife activity in the nearby west and central

Basin consists only of the occasional western gull and rock pigeon flyover. A roosting monarch leaves its tree and flies along the bike path.

8:55 am. A snowy egret lands in the southeast channel; a total of eight snowy egrets now forage in the channel. One killdeer lands on the east bank. A European starling flies along the north fence. One belted kingfisher and one mourning dove perch on power lines overlooking the Central Basin.

9:05 am. Crews begin creating scaffolding and bracing for the future cement wall along the west bank. Four snowy egrets leave the site to the southwest.

9:25 am. Drilling begins roughly 10 feet to the north of the pines along the south bank. No wildlife is present in the pines or in the vicinity. Traffic control measures are implemented and westbound Admiralty Way is down to one lane.

9:40 am. One snowy egret flies across the Basin and lands in the southeast channel. Two other snowy egrets fly over the West Basin from south to north and leave the site. Three spotted sandpipers fly east to west over the Basin. American crow, rock pigeon, and western gull flyovers are occasionally observed.

10:15 am. The drilling of the first caisson hole is completed and the drill rig is moved towards the east on the south bank. Drilling begins on the second caisson hole. Crane use begins at the tide gates. One double-crested cormorant is observed flying over the Basin and leaves the site to the southwest.

10:40 am. The second caisson hole is completed. The drill rig is moved to the west, past the first caisson hole. A crew takes a bulldozer down to the gabion peninsula in the Central Basin to work on hoses, pumps, and generators there. One mourning dove is perched on the powerline overlooking the central Basin, and one Anna's hummingbird flies over the west bank and off-site. No other wildlife is observed in the West or Central Basin. A large silt plume is observed in the pool at the tide gates.

11:00 am. Drilling of the third caisson hole begins approximately 20 feet east of the three tide gate pine trees. No wildlife is observed in the pine trees or in the vicinity. Work at the gabion peninsula is completed, and the bulldozer is returned to the northeast corner of the site. A black phoebe leaves its perch on the stormwater inlet as the bulldozer rolls by, but returns to its perch shortly thereafter.

11:25 am. The third caisson hole is completed. Several immature western gulls fly over the Basin to the northwest. A group of 14 rock pigeons rest atop the Killer Shrimp restaurant roof to the southeast of the site. One of these pigeons flies into the work area, circles the crane and drill rig, and perches on one of the high rises along Admiralty Way. Butterflies continue to be common, particularly swallowtails. They come to the Basin to drink from the wet sands and clays.

11:45 am. The drill rig is moved east along the south bank to the mouth of the southeast channel. Drilling of the fourth caisson hole begins. Three snowy egrets and one mallard remain in the

southeast channel and are undisturbed. Crews working on the tide gate demolition and the wall braces on the west bank begin cleaning up for lunch.

12:10 pm. The fourth caisson hole is completed. All crews break for lunch.

1:00 pm. Demolition work at the tide gates and parapet wall bracing on the west bank resumes. Dump trucks bring in another delivery of stone, and the crew uses a bulldozer to rearrange stone and gravel piles on the east bank. Another crew uses a forklift to help install caissons into the previously drilled holes. Drilling is done for the day and the rig has been returned to its staging location on the east bank. Other than the occasional rock pigeon flyover, there is little wildlife activity in the Basin.

1:30 pm. The Inspector of Record leaves the site. Although there is very little water left, four snowy egrets continue to forage in the southeast channel. One monarch butterfly is observed flying along the east bank. Two house finches and one Anna's hummingbird are observed along the bike path. A crew begins to lay gravel down at the northeast entrance.

1:50 pm. All work with large machinery has stopped on-site. Western wall bracing and caisson installation is being conducted by hand. Tide gate demolition crews are using jackhammers. Two American crows perch on a power pole in the northeast corner of the site, and one black phoebe flies in and perches on the stormwater inlet structure. The wind has picked up in the afternoon, and western gulls are frequently observed soaring out over the Basin.

2:15 pm. The crane is being utilized to assist with tide gate demolition. A dump truck arrives and delivers more stone to the east bank pile. The forklift is once again used to assist with caisson installation. No wildlife is observed in any of the three primary work areas.

2:45 pm. Rain-for-Rent technicians work on the valves and tanks near the construction trailer that leaked yesterday. No work is being conducted in the East Basin or the southeast channel. In areas where work is occurring, the Central and West Basin, no wildlife is observed. There are infrequent flyovers from rock pigeons, American crows, and western gulls. A ground squirrel burrow on the northeast peninsula shows signs of recent excavation (i.e. freshly expelled dirt/rocks).

3:10 pm. Crews are removing the lane closure barriers from Admiralty Way. A bulldozer delivers protective wood boxes to the gabion peninsula in the Central Basin. The boxes will protect the generators running pumps there. Since the wind picked up in the afternoon, very few butterflies and songbirds have been observed.

3:30 pm. One mourning dove perches on a temporary power pole on the west bank and overlooks crews installing scaffolding and bracing for the parapet wall cement pour scheduled for tomorrow. Most crews stop work and begin cleaning up for the end of the day. This includes the construction contractor, caisson crew, and concrete crew. The tide gate demolition crew continues to work to get a 3,500-lb concrete block removed.

3:50 pm. The tide gate demolition crew removes the block with the crane and begins to clean up for the day. No wildlife is observed in the vicinity.

4:00 pm. The construction contractor crew and superintendent, cement crew, and caisson crew leave the site. The biological monitor stays while the tide gate demolition crew and Rain-for-Rent crew finish work. The only work occurring includes clean-up and maintenance at the tide gates. No wildlife is observed in the vicinity.

5:00 pm. All crews and the biological monitor leave the site.

Additional Observations

No Black Skimmers, Osprey, or California Least Terns were observed today.

While not as numerous as the previous two days, two monarch butterflies were observed flying around the project site. One was roosting in a eucalyptus along the bike path (same area where dozens were observed roosting this past winter). Construction crews were reminded to be on the lookout for any monarchs that fly into active work areas.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on.
2. In general, wildlife is most active in the morning with a dramatic decrease in observed wildlife activity after 10:00 am. Wildlife activity increases slightly in the late afternoon.
3. Many of the bird species remained at the site for long periods and appeared undisturbed by the nearby construction activities. The wading birds that were present at the site seemed to prefer to rest and forage in areas of the Basin where less intense activities are occurring.
4. No fish were directly observed, but the presence of wading birds stalking the shallows indicates that a few fish (likely mosquito fish) and invertebrates likely remain. Snowy egrets were observed kicking up sediment to expose invertebrates.
5. While wildlife observations have decreased, insects remain common, including several species of dragonflies and butterflies, including monarch, swallowtails, sulphurs, white cabbage and painted lady. Observations decrease significantly when winds pick up.

6. Due to shallow, relatively stagnant water in the Basin, brown and green algae blooms are being observed more frequently. Siltation also was a concern today, as silt plumes were observed in the West Basin.

Table 1 provides a list of bird species observed during biological monitoring on October 1, 2015.

Table 1. Bird Species Observed during Biological Monitoring on October 1, 2015		
Common Name	Scientific Name	Comments
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the Basin banks
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	1 individual observed foraging in the southeast channel
Mallard	<i>Anas platyrhynchos</i>	4-6 individuals foraging in the southeast channel and the east Basin; flying overhead
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
Belted Kingfisher	<i>Megaceryle alcyon</i>	1 individual observed perched on a power line overlooking the central Basin
Mourning Dove	<i>Zenaida macroura</i>	Several individuals; Common – mainly seen sitting on power lines and flying overhead
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	1 individual observed flying overhead
Great Blue Heron	<i>Ardea Herodias</i>	1 individual observed flying overhead
Snowy Egret	<i>Egretta thula</i>	8-10 individuals observed foraging and resting in the Basin
Northern Mockingbird	<i>Mimus polyglottos</i>	1 individual observed in the northeast corner of the site
Black Phoebe	<i>Sayornis nigricans</i>	2-3 observed foraging and perching around the east Basin and southeast channel
Orange-crowned Warbler	<i>Oreothylpis celata</i>	2 individuals observed foraging in trees along the bike path
House Wren	<i>Troglodytes aedon</i>	1 individual observed in shrubs along the bike path
House Finch	<i>Haemorhous mexicanus</i>	7-9 individuals; observed flying overhead and perching on fences and vegetation
House Sparrow	<i>Passer domesticus</i>	2 observed in eucalyptus near the pump house
European Starling	<i>Sturnus vulgaris</i>	Very common; observed in palms north of site and flying overhead
Rock Pigeon	<i>Columba livia</i>	Very common; observed flying overhead and on structures to the south of Basin
Killdeer	<i>Charadrius vociferous</i>	1 observed foraging on the east bank
Dark-eyed Junco	<i>Junco hyemalis</i>	2 observed foraging along the south bank
Anna's Hummingbird	<i>Calypte anna</i>	5-7 observed singing and foraging along the Basin periphery
Allen's Hummingbird	<i>Selasphorus rufus</i>	1 individual observed perched on the south fence
Semipalmated Plover	<i>Charadrius semipalmatus</i>	4 individuals observed flying low over the Basin
Spotted Sandpiper	<i>Actitis macularia</i>	3 individuals observed flying low over the Basin



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Wendy Katagi, CDM Smith
Matt Petty, CDM Smith*

Date: October 2, 2015

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on October 2, 2015, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Matt Petty, CDM Smith biologist, beginning at 6:10 am and ending at 4:00 p.m. Weather conditions were mostly clear and sunny all day, with temperatures ranging from 66°F in the morning to a high of 79°F in the afternoon. No measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with trash and construction debris cleanup, scaffolding and bracing for the parapet wall on the west bank, sediment dredging and stockpiling in the West Basin, placing concrete around caissons for the viewing deck on the south bank, and tide gate demolition. All crews were overseen by the contractor superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:10 am. Biological monitor arrives on site to conduct initial assessment. Several crew members sit in trucks in Parking Lot No. 7. The biological monitor opens the gate.

6:20 am. The Initial Biological Assessment begins and very little wildlife activity (i.e. flyovers or movement) is observed, as is typical in the pre-dawn low light. Wildlife activity increases as dawn approaches. Two western gulls are sleeping in the West Basin. Three house sparrows fly along the north bank, and several European starlings begin stirring and calling from palms along Washington Boulevard. One black phoebe is observed in the northeast corner of the site. There is more

evidence of flow from the Washington Boulevard storm gutter/sewer – scour, trash/sediment deposition, and ponding. Two house finches, one Anna's hummingbird, two dark-eyed juncos, and one black phoebe perch in trees along the bike path. Nine snowy egrets, two black-crowned night-herons, and one mallard forage in the southeast channel. There is almost no water in the southeast channel, with two ponds near the outlet and the pump house.

6:45 am. The Initial Assessment continues. One great egret lands in the southeast channel. Two mourning doves rest on the south bank. As dawn breaks, western gull and American crow fly overs become frequent.

7:00 am. The biological monitor gave the bio-awareness training to the construction crew of 13 workers, including the site superintendent and subcontractors. Emphasis is placed on looking out for monarch butterflies and egrets present in the southeast channel. All workers signed the sign-in sheet. During the training, two snowy egrets fly off-site over the construction trailer and to the west. One great egret flies into the Basin and lands in the southeast channel.

7:15 am. Bio-awareness training for the Mahaffey crew of five begins on the south bank. They are reminded of the daily training they are required to attend in Parking Lot No. 7 at 7:00 am.

7:25 am. Work begins as the Mahaffey crew works on installing the second caisson on the south bank near the two pine trees. Crews also begin work on tide gate demolition and parapet wall bracing on the west bank. Approximately 10 American crows fly around the Basin foraging and harassing one another. The wading birds in the southeast channel jostle for position; some fly off temporarily to the stormwater inlet or the Central Basin before returning to the channel.

7:45 am. A flock of six house finches fly along Admiralty Way. One snowy egret and one mourning dove fly over the Basin. Water levels in the Basin are dropping rapidly and soils are slowly drying out.

8:10 am. Crews begin watering the potted plants and continue site cleaning and maintenance activities. Two gadwall fly over the Basin and exit the site to the northwest. American crow activity is frequent and widespread – a flock of 11 crows land in the large pine in the northeast corner of the site.

8:25 am. The caisson installation crew uses a forklift to help install the second caisson near the south bank pines. Five mourning doves land on power lines overlooking the Central Basin. Occasionally, a western gull will fly over the Basin. There is very little wildlife activity in the West and Central Basin where work is occurring; most activity is occurring in the southeast channel and along the bike path where no work is taking place.

8:40 am. One spotted sandpiper flies low over the Basin and exits the site to the west. One Anna's hummingbird lands in the pines near the tide gates.

9:00 am. An excavator is moved from the southwest corner of the site to the northwest mudflat area. Excavation begins in search of a Y sewer connection. Soils are stockpiled nearby. No wildlife

activity is observed nearby, except for the occasional western gull flyover and five European starlings around residences along Washington Boulevard.

9:35 am. A second excavator is moved to the West Basin to remove and stockpile soils. One snowy egret flies over the West Basin, and one house sparrow is perched on the north fence. A red-tailed hawk soars a few miles to the east of the Basin. The occasional American crow and rock pigeon flyover is observed.

10:00 am. The first excavator returns to a staging area in the northwest corner of the site to re-fuel. Admiralty Way is down to one-lane to allow the caisson-installing crew more room to operate. Two snowy egrets fly from the southeast channel to the West Basin, approximately 20 feet from the tide gates, and are undisturbed by nearby activities.

10:20 am. The second excavator returns to the West Basin to continue excavating the sewer connection trench. Three snowy egrets, one black phoebe, and one mallard remain in the southeast channel. With one snowy egret at the stormwater inlet and two in the West Basin, there are six snowy egrets still on site. One lesser goldfinch is observed foraging in the lower branches of the tide gate pine trees.

10:35 am. The caisson-installation crew moves its trucks and the forklift west down Admiralty Way. The sewer connection is found, and one excavator returns to its staging area in the northwest corner of the site. The two snowy egrets in the West Basin fly off-site to the northwest. The number of flyovers has decreased significantly compared to earlier in the morning.

11:00 am. The biological monitor informs the site superintendent that there is a 60% chance of rain Saturday night. The superintendent confirms that all necessary BMPs are in place. The site QSP joins the discussion and confirms BMPs are in place. The superintendent also informs the biological monitor that the Inspector of Record is home sick and will not be coming in today.

11:20 am. A large excavator slowly moves from the West Basin to the Central Basin stockpiling soils on the north shore. A bulldozer takes a crew out to the gabion peninsula in the Central Basin to conduct maintenance on the generators and pumps there. No wildlife is observed in the West or Central Basin. As it gets later in the day, green and brown algae become more apparent in the remaining pools.

11:45 am. The bulldozer returns from the gabion peninsula to its staging area in the northeast corner. As it passes the stormwater inlet, it flushes a black phoebe from its perch. The phoebe flies to the northeast peninsula and perches on a wooden stake. Two mallards fly over the Basin and exit the site to the northwest. Excavation of soils in the Central Basin stops. A cement truck arrives along the south fence to cement-in the caissons. A flock of 13 rock pigeons fly over Parking Lot No. 7.

12:00 pm. All crews break for lunch, except for the caisson-installation crew which is setting the structures in concrete.

1:00 pm. Setting the caissons with cement continues on the south bank. The demolition of the tide gates and general site cleaning and maintenance resumes. Other than the occasional American crow or rock pigeon flyover, no wildlife activity is observed in the Basin.

1:20 pm. The second of two caissons that will be set in concrete today is completed. One Anna's hummingbird is observed in the pine trees near the tide gates. Two killdeer land on the east bank and begin calling and foraging.

1:40 pm. A large excavator is moved around the pump house, which causes the last snowy egret on site to leave the southeast channel. It circles the Basin and returns to the channel once the excavator has moved on. This egret is the only wading bird/duck remaining on-site. A black phoebe that was also perched in the channel is undisturbed. Two orange-crowned warblers are observed in the large ficus tree to the southeast of the site.

2:00 pm. The caisson-installation crew has completed work for the day. They pack up and leave the site. The excavator is temporarily staged at the southeast gate/boat ramp. The remaining crews on-site are involved with tide gate demolition, bracing the parapet wall on the west bank, or unloading equipment near the construction trailer. One monarch, the day's first, is observed flying along the south shoreline.

2:40 pm. Work currently occurring in the Basin: Tide gate demolition, removal of traffic control measures on Admiralty Way, site clean-up, and loading truck with stone in northeast corner. Two white-crowned sparrows and one house finch fly bush-to-bush along the west bank. American crow, western gull, and rock pigeon flyovers becoming more frequent.

3:00 pm. The truck loaded with stone parks near the construction trailer. One snowy egret lands in the Central Basin near the gabion peninsula. One white-crowned sparrow hops among the potted grape vines on the west bank.

3:15 pm. One western gull lands in the West Basin approximately 20 feet from tide gate demolition activities. The snowy egret in the central Basin flies over and lands next to the gull. Both explore the nearby pool together, undisturbed by the jackhammering nearby.

3:40 pm. All activities on site stop for the day. Crews clean up and begin to leave the site. The snowy egret in the West Basin flies off to the southwest.

4:00 pm. All crews and the biological monitor leave the site.

Additional Observations

No Black Skimmers, Osprey, or California Least Terns were observed today.

While not as numerous as on the previous two days, one monarch butterfly were observed flying around the project site. Construction crews were reminded to be on the lookout for any monarchs that fly into active work areas.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on.
2. In general, wildlife is most active in the morning with a dramatic decrease in observed wildlife activity after 10:00 am. Wildlife activity increases slightly in the late afternoon.
3. Many of the bird species remained at the site for long periods and appeared undisturbed by the nearby construction activities. The wading birds that were present at the site seemed to prefer to rest and forage in areas of the Basin where less intense activities are occurring.
4. No fish were directly observed, but the presence of wading birds stalking the shallows indicates that a few fish (likely mosquito fish) and invertebrates likely remain. Snowy egrets were observed kicking up sediment to expose invertebrates.
5. While wildlife observations have decreased, insects remain common, including several species of dragonflies and butterflies, including monarch, swallowtails, sulphurs, white cabbage and painted lady. Observations decrease significantly when winds pick up.
6. Due to shallow, relatively stagnant water in the Basin, brown and green algae blooms are being observed more frequently.
7. The presence of orange-crowned warblers and white-crowned sparrows indicate that early migrations have begun. As summer draws to a close, it is expected that migrants and winter species will be observed at the site more frequently moving forward.

Table 1 provides a list of bird species observed during biological monitoring on October 2, 2015.

Table 1. Bird Species Observed during Biological Monitoring on October 2, 2015		
Common Name	Scientific Name	Comments
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the Basin banks
Red-tailed Hawk	<i>Buteo jamaicensis</i>	1 individual observed soaring east of the Basin
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	2 individuals observed foraging in the southeast channel
Mallard	<i>Anas platyrhynchos</i>	2-3 individuals foraging in the southeast channel

		and flying overhead
Gadwall	<i>Anas strepera</i>	2 individuals observed flying overhead
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
Mourning Dove	<i>Zenaida macroura</i>	Several individuals; Common - mainly seen sitting on power lines and flying overhead
Great Egret	<i>Ardea alba</i>	2 individuals observed in the southeast channel
Snowy Egret	<i>Egretta thula</i>	8-10 individuals observed foraging and resting in the Basin
Lesser Goldfinch	<i>Carduelis psaltria</i>	1 individual observed in the pines near the tide gates
Black Phoebe	<i>Sayornis nigricans</i>	2-3 observed foraging and perching around the east Basin and southeast channel
Orange-crowned Warbler	<i>Oreothylpis celata</i>	2 individuals observed in large ficus to the southeast of the site
House Finch	<i>Haemorhous mexicanus</i>	8-10 individuals; observed flying overhead and perching on fences and vegetation
House Sparrow	<i>Passer domesticus</i>	2-3 observed along the north side of the site
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	2-3 observed in bushes along the west bank
European Starling	<i>Sturnus vulgaris</i>	Very common; observed in palms north of site and flying overhead
Rock Pigeon	<i>Columba livia</i>	Very common; observed flying overhead and on structures to the south of Basin
Killdeer	<i>Charadrius vociferous</i>	2 observed foraging on the east bank
Dark-eyed Junco	<i>Junco hyemalis</i>	2 observed in trees along the bike path
Anna's Hummingbird	<i>Calypte anna</i>	3-5 observed singing and foraging along the Basin periphery
Spotted Sandpiper	<i>Actitis macularia</i>	1 individual observed flying low over the Basin



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Wendy Katagi, CDM Smith
Matt Petty, CDM Smith*

Date: October 3, 2015

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on October 3, 2015, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Matt Petty, CDM Smith biologist, beginning at 6:20 am and ending at 4:00 p.m. Weather conditions were mostly clear and sunny all day, with temperatures ranging from 66°F in the morning to a high of 78°F in the afternoon. No measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with trash and construction debris cleanup, preparing for and filling parapet wall trenches with a slurry fill, sediment dredging and stockpiling in the southeast channel, pumping out and patching a broken water line, and extracting a stuck excavator. All crews were overseen by the contractor superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:20 am. Biological monitor arrives on site to conduct initial assessment. He meets with the construction superintendent for a few moments. Other crew members have yet to arrive.

6:40 am. The Initial Biological Assessment begins, and a great blue heron flies over the construction trailer and lands in the southeast channel. Two European starlings fly along Washington Boulevard, and one black phoebe perches on the north fence. One house sparrow flies about the northeast peninsula. Consistent with observations on previous mornings, there is evidence that flows are entering the Basin from the Washington Boulevard storm gutter/sewer – scour,

trash/sediment deposition, and ponding. Western gull flyovers are observed with regularity, and one great egret flies over the Basin from west to east. Two house finches are observed in the northeast corner of the site. Along the bike path, one house wren, two white-crowned sparrows, one Anna's hummingbird, and four orange-crowned warblers are observed. In the southeast channel, in addition to the great blue heron, there are two black-crowned night-herons, three snowy egrets, one dark-eyed junco and one black phoebe. Two dark-eyed juncos are foraging on the south bank, and one Anna's hummingbird is perched on the south fence. Compared to most days, there is very little American crow activity; two fly past the site along Admiralty Way. Five rock pigeons fly over the West Basin, and two mourning doves investigate the west bank. Water levels in the Basin and southeast channel are low and similar to levels observed yesterday.

7:00 am. The biological monitor gives the bio-awareness training to the construction crew of 10 workers, including the site superintendent. No subcontractors are scheduled to work today. Emphasis is placed on looking out for monarch butterflies and egrets present in the southeast channel. All workers signed the sign-in sheet.

7:15 am. The site superintendent goes over the day's work plan. A peregrine falcon leaves its perch on the high rises across Admiralty Way and circles high above the West Basin before leaving the site to the southwest.

7:25 am. Work begins as crews clean the site near the construction trailer and conduct site preparation and survey activities near the boat ramp in the southeast channel. American crow activity picks up, and a large flock is observed to the northeast of the site.

7:45 am. As more crew arrive in the area, the great blue heron and two black-crowned night herons leave the southeast channel and fly off-site to the northwest. One snowy egret also flies off to the south, but two remain in the channel, undisturbed by the increase in construction activity. Two Anna's hummingbirds chase one another around the southeast channel and eventually fly off over the east fence. A group of 11 crows probe the south and east banks of the Basin, and five house finches sing from trees across Admiralty Way.

8:00 am. The drill rig is moved north to open up a dirt road along the east fence. An excavator moves down the boat ramp to begin muck removal in the southeast channel. One immature black-crowned night-heron flies into the channel and lands near the pump house. A black phoebe also flies in and lands on a silt fence stake near the pump house.

8:20 am. One dark-eyed junco perches in a palm to the southeast of the site. One western scrub-jay and one Anna's hummingbird are observed in the yards of residences on the other side of the bike path. The immature black-crowned night-heron flies into the eucalyptus tree nearest the pump house. The biologist has to repeatedly shoo the one remaining snowy egret away from the excavator – it runs in and tries to catch easy meals in the flooded holes dug by the excavator.

8:45 am. There is substantial songbird activity in the eucalyptus and ficus trees in Yvonne Burke Park. The birds appear to largely be finches and sparrows. Five house finches fly over the site and perch on a railing on one of the high rise balconies across Admiralty Way. The snowy egret flies

into the same eucalyptus tree as the immature black-crowned night-heron. Although typically found in desert habitats inland, a Costa's hummingbird is observed calling from eucalyptus trees along the bike path.

9:00 am. A dump truck delivers a load of stone to the boat ramp, and the Inspector of Record arrives on site. The snowy egret leaves the eucalyptus tree near the pump house and lands in the southeast channel, roughly 50 feet from the excavator. It soon approaches to within 10 feet of the excavator and work temporarily stops as the biologist shoos it away; it flies to the stormwater inlet in the northeast corner of the site.

9:20 am. The primary excavator gets stuck in the mucky soils in the southeast channel at the end of the boat ramp. A secondary excavator is brought over from the northeast corner to pull/dig it out. A snowy egret lands in the southeast channel near the pump house, roughly 100 feet from the stuck excavator.

9:40 am. Power Plus arrives on-site to fix the power pole and line that was hit by a dump truck on Thursday. The biologist does not have the sign-in sheet on him, but gives the Power Plus crew of two the bio-awareness training. There are fairly frequent house finch, house sparrow, and Anna's hummingbird flyovers over the southeast channel. They largely fly back and forth between trees along the bike path and trees on the other side of Admiralty Way.

10:15 am. The Power Plus crew finishes work and leaves the site. The excavator remains stuck in the southeast channel. In addition to trying to free the excavator, crews prepare the trench in the northwest corner of the site for a 1:00 slurry fill. Bird activity in the Basin is decreasing and very few songbirds are observed. The snowy egret is still foraging in the southeast channel, and the immature black-crowned night-heron is still perched in the trees near the pump house. One black phoebe perches on the pump house railing.

10:35 am. Work in the northwest corner hits a water line and floods the trench. Workers scramble to assemble generators, pumps, and hoses to pump out the water. The snowy egret leaves the southeast channel and exits the site to the west. There are no longer any waders/ducks in the Basin.

10:50 am. One snowy egret returns to the southeast channel and perches in the eucalyptus tree near the pump house next to the immature black-crowned night-heron. This causes the immature black-crowned night-heron to leave its perch and fly off-site to the south. Two white-crowned sparrows fly along the east fence. One black phoebe is observed flying along the south shoreline.

11:10 am. The snowy egret leaves its perch and lands roughly 15 feet from the stuck excavator. Work to free the excavator temporarily stops until the biological monitor can flush it away to a safe distance (~50 feet away).

11:30 am. Pumps, generators and hoses are moved from the southeast channel to the site of the ruptured water line. Work continues extracting the stuck excavator. Wildlife largely stays 50 or more feet away from work activities or flies high up over the work site. One monarch is observed

flying along the bike path. Two dark-eyed juncos and one Anna's hummingbird are singing from trees along the bike path.

11:50 am. Crews begin placing stone around the stuck excavator in an attempt to extract it. The snowy egret in the southeast channel flies off-site to the north. A belted kingfisher flies across the Basin and perches atop the stationary crane near the tide gates. Two house sparrows perch atop a light pole along Admiralty Way.

12:00 pm. The County arrives to look at the ruptured water line. They largely approve of the work being done, but still emphasize that the contractor is responsible for fixing it. The second excavator is freed from the muck at the end of the boat ramp. The excavators return to removing soils from the southeast channel. A bulldozer is used to fill a dump truck with stone in the northeast corner. The truck takes the stone to a pile near the boat ramp. No wildlife is observed in the vicinity of the active work areas.

12:40 pm. With the water line leak contained, crew members continue to prepare the northwest trench for a slurry pour. Excavation continues in the southeast channel. A belted kingfisher flies from its perch on the stationary crane at the tide gates to a power line overlooking the Central Basin. Occasional American crow and rock pigeon flyovers are observed.

1:00 pm. Crews take staggered lunch breaks from 12:00-1:30. The biological monitor takes lunch with the excavator crew because wildlife is most likely to be adversely affected by mechanized activities.

1:30 pm. The biological monitor and excavator crew return from lunch. The excavator crew begins to clean up the southeast channel site in preparation for the end of the day. Two house finches and one monarch butterfly are observed flying just outside of the southeast gate. Half of the excavator crew leaves by 1:45 pm, while the other half assist with the slurry pour in the northwest corner of the site.

1:50 pm. The second of three cement trucks begins to fill the northwest trench with 2-bag slurry. The first cement truck has emptied and leaves the site. A small excavator is used to widen/deepen the trench away from the slurry pour. Three European starlings are observed roughly 200 feet east of the slurry fill in palms along Washington Boulevard. Infrequent American crow and western gull flyovers of the Basin are also observed.

2:10 pm. The second cement truck has emptied its slurry load into the northwest trench and leaves the site. Crew members spread the slurry by hand with shovels. One mourning dove flies over the work area and lands on a temporary power pole on the west bank.

2:45 pm. The third concrete truck arrives on site and empties 2-bag slurry into the northwest trench. Two mourning doves fly over the area and land on a fence near the construction trailer. One western gull lands in the Central Basin, as several others fly over. One white-crowned sparrow is observed in the bushes on the west bank.

3:15 pm. The third concrete truck leaves the site. Crews spread the slurry around the trench with shovels and the small excavator. Other crew members clean up the site and readjust water pipes in the northeast corner. The Inspector of Record leaves for the day. The western gull in the central Basin flies away to the southwest. Other than some rock pigeon activity along Admiralty Way and some American crow activity in and around Parking Lot No. 7, no wildlife is observed.

3:45 pm. Crews complete pipe readjustment and cleanup activities, shut off pumps, and prepare to leave the site. Three house sparrows are observed in bushes within the staging/laydown area near the Hilton Garden Inn. Several rock pigeon flyovers are observed. One European starling flies along the north fence.

4:00 pm. All crews and the biological monitor leave the site.

Additional Observations

No Black Skimmers, Osprey, or California Least Terns were observed today.

While not as numerous as on the previous two days, two monarch butterflies were observed flying around the project site. Construction crews were reminded to be on the lookout for any monarchs that fly into active work areas.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on.
2. In general, wildlife is most active in the morning with a dramatic decrease in observed wildlife activity after 10:00 am. Wildlife activity increases slightly in the late afternoon.
3. Many of the bird species remained at the site for long periods and appeared undisturbed by the nearby construction activities. The wading birds that were present at the site seemed to prefer to rest and forage in areas of the Basin where less intense activities are occurring.
4. No fish were directly observed, but the presence of wading birds stalking the shallows indicates that a few fish (likely mosquito fish) and invertebrates likely remain. Snowy egrets were observed kicking up sediment to expose invertebrates.
5. While wildlife observations have decreased, insects remain common, including several species of dragonflies and butterflies, including monarch, swallowtails, sulphurs, and painted lady.

Observations decrease significantly when winds pick up.

6. Due to shallow, relatively stagnant water in the Basin, brown and green algae blooms are being observed more frequently.
7. The presence of orange-crowned warblers and white-crowned sparrows indicate that early migrations have begun. As summer draws to a close, it is expected that migrants and winter species will be observed at the site more frequently moving forward.

Table 1 provides a list of bird species observed during biological monitoring on October 3, 2015.

Table 1. Bird Species Observed during Biological Monitoring on October 3, 2015		
Common Name	Scientific Name	Comments
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the Basin banks
Peregrine Falcon	<i>Falco peregrinus</i>	1 individual observed on high rises and flying out over the west Basin
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	3 individuals observed foraging and roosting in the southeast channel
Great Blue Heron	<i>Ardea Herodias</i>	1 individual observed in the southeast channel
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
Mourning Dove	<i>Zenaida macroura</i>	Several individuals; Common – mainly seen sitting on power lines and flying overhead
Great Egret	<i>Ardea alba</i>	1 individual observed flying overhead
Snowy Egret	<i>Egretta thula</i>	3-5 individuals observed foraging and resting in the Basin
Western Scrub-Jay	<i>Aphelocoma californica</i>	1 individual observed flying among bushes in residential yards near bike path
Black Phoebe	<i>Sayornis nigricans</i>	2-3 observed foraging and perching around the east Basin and southeast channel
Orange-crowned Warbler	<i>Oreothlypis celata</i>	4 individuals observed in trees along the bike path
House Finch	<i>Haemorhous mexicanus</i>	Several individuals; Very common flying overhead and perching on fences and vegetation
House Sparrow	<i>Passer domesticus</i>	5-7 observed along the south and east sides of the site
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	3-5 observed along the bike path and in bushes along the west bank
European Starling	<i>Sturnus vulgaris</i>	Very common; observed in palms north of site and flying overhead
Rock Pigeon	<i>Columba livia</i>	Very common; observed flying overhead and on structures to the south of Basin
House Wren	<i>Troglodytes aedon</i>	1 observed in bushes along the bike path
Dark-eyed Junco	<i>Junco hyemalis</i>	5-7 observed in trees along the bike path and around the southeast channel
Anna's Hummingbird	<i>Calypte anna</i>	3-5 observed singing and foraging along the Basin periphery

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Costa's Hummingbird	<i>Calypte costae</i>	1 individual observed calling from trees along the bike path
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